THE GENESEE FARMER.

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THE GENESEE FARMER.

SATURDAY, AUGUST 18, 1838.

The Crops in Onondaga County.

Never since the settlement of the country have the prospects of the farmer for an abundant harvest, and consequent ample remuneration for his toils, been more flattering than at the present.

Wheat, the great staple of the west, is very fine.—The growth is heavy, the straw and head bright, and the berry unusually plump and smooth. The winter injured many pieces, but the cool, moist weather of May was most favorable to such, and much that was considered past recovery, and probably would have been ploughed up had the season permitted, will yield a fair crop. A large proportion of the winter wheat is already cut, and safely housed, and the securing of the remainder is rapidly progressing. The difference between the time of harvesting wheat on the elevated shale district across the south part of the county, and the sandstone formation, or that part lying principally north of the canal, is not less than ten days, and, in some instances, even more. The harvest on the limestone formation, or through the central part of the county, is, as the position would indicate, intermediate betwen the others, but in time more nearly approaching the north than the south. The quantity of spring wheat sown this year was very great, and in general is very good. The earliest sown was injured by the heavy rains, and cold weather of April and May, which rotted much of the seed, and rendered the growth on such fields more thin than it would have been. Spring wheat is now so far advanced that it may be considered safe from ordinary casualties, and promises to fully sustain the high rank it has held for a year or two in the public estimation. The worm has appeared in many fields, but not so as to occasion serious injury either in the spring or winter grain; and we hope to partially escape, in coming years, the extensive ravages of this pest. The fine, dry weather of July, has prevented the common diseases of wheat, such as the rust, mildew or blight, from showing themselves. Smut is found in some fields, but not where the seed was pure, or properly prepared. Experience would seem to show that the chances of smut are greater where the seed is only wet, as it sometimes is to free it from oats, &c. and not dried in lime, than when put into the ground dry. But lime should always be used; and the farmer who raises smutty wheat should be marked as one that is a disgrace to the profession. Of the kinds as yet known, the Italian promises to remain the favorite.

Onondaga is noted for being a barley growing county; and the crop of this year will not lessen its reputation in this respect. Unless sown very late, it is now ready for cutting, or has been already secured. The berry is white, heavy, and of excellent quality. Barley is extensively sown as a crop before wheat, and is considered equal to any cultivated in the region for that purpose, with the exception, perhaps, of the pea. It is a good crop for seeding down land, and where lands, meadows, &c. have become bound out, as the phrase is, or are overrun with coarse grasses, it is found a good practice to turn them over in the spring very smooth, roll them well to level the surface, use a light harrow to loosen the surface earth, and then, sow it with barley or spring wheat, and the necessary quantity of grass seeds to renew the field.

Corn, which, owing to the unfavorable seasons we have had for two or three years, has fallen into disrepute, never appeared finer than at the present time. As it is one of the most valuable crops the farmer can cultivate, it is to be hoped, should the crop come in according to present promise, that more will another year be planted than has been done the present one. It can scarcely be doubted, but that, unless in the most unfavorable places, by paying proper attention to seed, and using the earliest varieties, corn can be grown with the utmost certainty of success. Farmers should examine results carefully, before they discard a crop so valuable in almost every respect, as Indian corn.

Oats, the present year, are, as they almost uniformly are in this county, good. Oats are the latest seed the farmer puts in the ground, and are usually placed where little else will grow, or on lands which, owing to want of time, cannot be prepared for other crops. For several years past oats have better repaid the husbandman than most other grain, as they are cultivated with so little expense and care. The low prices of last spring, however, had their effect, and the quantity sown was materially diminished. Their heavy growth, and well filled heads, indicate, however, that there will be no want of provender for that valuable animal the horse, to feeding which, oats are principally devoted. The black or Tartarian oat, is coming rapidly into use, as a hardy plant, and producing good crops. Whether it is as valuable as the common oat remains to be tested by use, though its weight would indicate there could be no deficiency in this respect.

Grass this year is most abundant; and unusual quantities of hay will be made. Instances are numerous in which the pastures have become so luxuriant as to require mowing, and in summer fallowing it was found impossible to proceed until the growth of grass had been converted into hay, and taken from the field. In some instances two tons of first rate hay have been taken per acre from such pastures. Farmers should take warning by the disastrous losses many suffered from the hoof-ail the last year, and endeavor to guard against the effects of the ergot which this year, in many meadows, absolutely loads the June grass. Meadows in which this grass prevails should be turned over, and new seeded with other grasses. This course was successful in extirpating the hoof-ail from most farms on which it prevailed many years since, and would, doubtless, be so again. Some may still doubt the correctnees of the opinion that this disease is produced by ergot; but the evidence in favor of the supposition has become so cumulative, that true wisdom on the part of the farmer would seem to lead him to hesitate, before he exposes his herds to the influence of this poison.

Judging from present appearances, roots will this year, be a partial failure. The season has been too hot and dry for potatoes; and the want of rain about the time that the tubers were setting, will have a tendency to diminish the crop even should the latter part of the season be favorable. A moist climate, and not too warm, is found to agree best with the potatoe, and the present season, those planted in lands usually considered wet, if rich and not too heavy, will succeed the best. The great quantities planted preclude the idea of want of this root, even should the failure anticipated be realized. But few good fields, or pieces of turneps, are seen this year. It is supposed by many that the seed sown did not generally vegetate, but there is more reason to think it was destroyed by the fly immediately after leaving the ground. The turnep fly is found in abundance the present season, and the hot, dry weather of the season for sowing gave the insect great advantages over the young plant. Some lots escaped and appear well. The decided profit of the turnep culture, should prevent a single failure from disheartening any one, a result not anticipated, unless in the case of those who have made their first trial the present season. The beet and the carrot look well and promise a good crop to the grower. Tap rooted plants, standing single, and penetrating the earth deeply, are less liable to suffer from drouth than those whose roots spread near the surface.

Considerable quantities of buckwheat were sown, and looks well. This is a valuable grain, furnishing a large amount of food for both man and beast. It is by many of the farmers of New England considered the best substitute for corn in making pork, and a hot buckwheat cake is no despisable item of breakfast, when the thermometer is 20 degrees below zero. The new species of this plant, called the Indian wheat, which has been much extolled for its productiveness, 'down east,' has been introduced, and its value, as compared with the common variety, will be tested this season.

In short, our barns and granaries will be full to overflowing; and our feelings should be those of gratitude and thankfulness. In our abundant harvest throughout the country, may be seen the positive increase of national wealth; the means of substantial comfort, as well as mere subsistence; and a proof, that with the liquidation of the balance in trade against us abroad, will be the return of prosperity to all classss.

Otisco, Aug. 8, 1838.

ASPHALTIC CEMENT.

This new substance, or rather this old substance in its new application, promises to be of such value in the arts in the formation of pavements, the construction of cisterns, &c., where great strength and durability are required, that we have been induced to give a short notice of its nature and preparation condensed from a work published in London, by M. W. Simmons, Engineer. This cement, is prepared from a bituminous limestone found in the Jura mountains, near Pyrmont. This limestone is very uniformly impregnated with about 9 per cent. of bitumen, and the preparation consists in roasting it to drive off what water it contains, and then breaking it down to a fine powder, or rather, as is usually the case, to a calcareous gravel. To the calcareous asphalte thus prepared, seven parts in one hundred of bitumen is added, the bitumen being extracted near the same place from an immense body of sileceous and bituminous gravel. This gravel broken up, is thrown into boiling water, and yields of bitumen, from 15 to 18 per cent. This and the calcareous asphaltum, in the above proportions, are thrown into iron caldrons, carefully heated, and when liquid is ready for use. If intended for pavements a quantity of clear gravel is incorporated with it by stirring before it is placed in the moulds, but if intended for lining walls of stone or brick, the gravel is omitted.

A variety of experiments have been made to test the power of this cement, and they have all resulted most satisfactorily in evidencing its strength and durability.—Thirty bricks were cemented together with the asphaltum, the whole length being five feet seven and one fourth inches, each brick being two inches thick. This length of bricks was placed on a prop in the middle, and no change took place at the ends by sinking. Twenty-two bricks were then projected over the fulcrum, the other end balanced by weights and the adhesion remained perfect. In experimenting farther one end of the brick column fell with its full weight on the ground, and a fracture in the middle was the consequence, but a brick failed and not the cement. A column of cemented bricks supported at each end, resisted a weight of six hundred pounds placed on the centre, for some time, and then as before the brick, and not the cement, gave way.

As a material for paving streets, the experiments made in Paris were equally satisfactory, and proved cheaper, as well as far more durable, than the common flagging stone or even granite. As arrangements have been made in New-York to test its advantages in this climate, we shall soon be able to learn whether it can resist the severe frosts of this country, or whether, like the English MacAdamized roads, they are not applicable without extra care and attention, to a region where the winter months find

the mercury from 20 to 40 degrees below zero. Should its apparent value be realized, it will prove of decided use in the construction of public works; and we may hope that the geological surveys now prosecuting in most of the states with such diligence, will result in the discovery of a similar article in this country, or at least of an adequate substitute.

Journal of an Exploring Tour beyond the Rocky Mountains.

BY THE REV. SAMUEL PARKER.

There has been no work presented to the public of this country the present season, of more general interest to the American reader, than the one the title of which is affixed. Independent of the great weight of the religious considerations connected with the christianization and civilization of the Indians of our territory, considerations which induced Mr. Parker to undertake the tour, there is abundance of matter in the volume to attract and instruct. At the moment when the occupation of the Oregon territory is under discussion in Congress, and measures appear necessary to prevent the encroachment of foreign agents and companies on our territory, the appearance of this work, giving a better account of the geography, geology, and natural history of the country than has yet been offered, is most opportune, and its influence must be decidedly beneficial. We have read it with interest, and, without entering into a formal notice, shall give a few extracts which we think will afford the readers of the Farmer an idea of the matter and manner of the Journal.

All travelers in the West, agree that the variety of herbage, grasses and flowering plants in the immense praries or meadows that lie at the eastern base of the Rocky Mountains, exceed description, and in this respect Mr. Parker does not differ from those that have preceded him. He says:—"The botany of this section of the country is very interrsting. Since crossing the Elkhorn, I have noticed nine different species of grass, most of which are entirely new. The flowering plants are very numerous and beautiful, and especially the rose, which is found of almost every hue. Thermometer at noon (July 3,) 90."

After leaving the prairies, and entering upon the hilly region that intervenes between them and the mountains, the country was found as desolate and forbidding, as it had before been inviting. In this region, "a wild wormwood grows in great quantities, and very large, where the the soil is gravelly and barren. Some of it grows eight or ten feet high, and is an obstruction to traveling. It is generally called wild sage. Scarcely any animal will taste it, unless compelled by extreme hunger. The prairie hen crops its buds or leaves, which renders its flesh bitter and unpalatable for food."

We purposely omit Mr. Parker's interesting account of the passage of the mountains to make room for the following which occurs in the Journal, after the party had reached the western side of the immense range, but were still surrounded by mountain peaks covered with eternal snow.

"Flax is a spontaneous production of this country.—In every thing, except that it is perennial, it resembles the flax that is cultivated in the United States—the stalk, the boll, the seed, the blue flower, closed in the day time, and open in the morning and evening. The Indians use it to make fishing nets. Fields of this flax might be managed by the husbandman in the same manner as meadows for hay. It would need to be mowed like grass; for the roots are too large and run too deep into the earth, to be pulled as ours is, and an advantage, which this would have, is, that there would be saving of ploughing and sowing. Is it not worthy the experiment of our agricultural societies?"

This we consider an important notice and suggestion, and we hope will be acted upon promptly. Some of our agricultural friends at St. Louis, might, we doubt not, by means of the fur companies, and their agents, procure some of the seed of this Rocky mountain flax, and should it in our climate and latitude answer the description here given, its introduction would be of immense value to the United States. While in the same vicinity, the following entry occurs in the Journal. "Kentric, my Indian, brought me to-day some very good currants, which were a feast in this land. There were several species, yellow, pale red, and black. The yellow, and pale red, were the best flavored."

Every reader remembers the story of the Yankee manufacturer, who, when he first saw Niagara, gazed for a moment in open-mouthed wonder, and then exclaimed—'what an almighty water power!' Something of the same feeling seems to have attracted Mr. Parker at the Falls of the Multnomah or Willamette, the main south branch of the Columbia. After mentioning the beauty and extreme fertility of the country on this river, which is navigable for shipping from the Columbia to the Falls, he adds,—"The opportunities here for water power are equal to any that can be named. There cannot be a better situation for a factory village than on the east side of the river, a dry wide spread level extends some distance, and the shores form natural wharves for the shipping. The whole country around, is pleasant and fertile. And can the period be far distant, when there will be here a busy population? I could hardly persuade myself that this river had, for many thousand years, poured its waters down these falls without having facilitated the labor of man. Absorbed in these contemplations I took out my watch, to see if it was not the hour for the ringing of the bells. It was two o'clock, and all was still except the roaring of the falling water. *I called to remembrance that in* 1809 *I stood by the falls of the Genesee river, and all was silent except the roar of the cataract. Rochester stands where I then stood?*"

Speaking of a man named Thornburgh, who was murdered in an affray, Mr. Parker says he was a remarkable instance of a most insatiable appetite for ardent spirits.—"Mr. Townsend, the ornithologist, told me he was encamped out for several days, some miles from Fort William, attending to the business of his profession; and that, in addition to collecting birds, he had collected rare specimens of reptiles, which he preserved in a keg of spirits. Having occasion to go to his keg to deposite another reptile he found the spirits gone. Mr. Townsend, knowing that Thornburgh had been several times loitering about, charged him with having drank off the spirits, and he pleaded guilty." We imagine such a thirst for spirits is not confined to the Oregon territory. Unless we are misinformed a hogshead of 'subjects,' intended for the surgeon's hall in one of our principal cities, having been neglected for a few days, was found drained as dry as Townsend's reptiles.

One of the most remarkable facts connected with the country west of the Rocky Mountains, is the mildness of the climate. During the winter spent by Mr. Parker at Fort Vancouver (1835-6) the thermometer never fell below 22° and to that only on three days. The robin and other of our birds of passage were about all winter. Horses and cattle that run in the fields, and on the prairies, fattened; and ploughing and sowing is commenced in February. There was very little snow fell, and that lay but a few days. Fort Vancouver is situated 100 miles from the Ocean, north of latitude 45°, yet the productions of the Company's garden at that place are such as are grown in the United States, south of latitude 32° and never north. The snows that fall during the winter months, east of the Rocky Mountains, are rains to the west of that range; and while it has been stated and supposed that this difference of temperature was owing to the winds trom the Pacific, Mr. Parker asserts that the prevailing winds during the winter months were from the east, or from the mountains. The whole region west of the mountains bears marks of volcanic action, and, in some instances, quite recent; may not the increased temperature be in part, if not entirely, owing to the agency of subterranean fires.

Mr. Parker's chapters on the natural history of the Oregon country, are particularly interesting; and though his book makes no pretentions to scientifiic description, the notices are not the less valuable for the general reader. We noticed the following respecting the Swallow.—"Swallows made their appearance on the 12th of March; and among them a new species, characterized by the plumage of their head and back being a most beautiful changeable green with other parts purple and white." The prairies, and the the untrodden recesses of the Rocky mountain country afford places of retreat and security to many singular animals, and the botanist and the ornithologist find in this region a most fertile field of investigation and discovery. We await, with some impatience, the publication of Mr. Townsend's scientific narrative of his travels and collections in the far West.

The chapter on geology, which defends the commonly received interpretation of the first chapter of Genesis, against the deductions of modern science and geological discovery, we do not consider remarkably clear or conclusive. Revelation has nothing to fear from the investigations of science; while the effect of an obstinate adherence to preconceived theories, by bringing about a *seeming* conflict between revelation and the discoveries of philosophy, may be productive of immense injury.

A single fact, stated by Mr. Parker, goes farther in our opinion to furnish a plausible solution of the great question of the peopling of this continent, than all the volumes and theories that have been promulgated. A Japanese junk was cast away near the mouth of the Columbia, in 1833. She had drifted across the wild Pacific being without the nautical instruments and skill necessary to find their way to a port. If such a vessel could traverse the Pacific under such circumstances in safety now, what was there to prevent such an occurrence three or even five thousand years since? Numerous instances have been noticed in which the vessels of Japan, China, and the Asiatic Islands, have been found lost at sea, or have drifted up and down the Pacific until the crews perished of starvation, or fortune threw them on some distant shore. In 1833 a Japan junk, with eleven men, was thrown upon Oahu, one of the Sandwich islands. In this way the scattered islands of the Pacific, and the American continent may have been peopled, without the aid of continents now sunken, or the necessity for the creation of more than a single pair of human beings.

SOUTH WESTERLY WINDS.

The last number of Prof. Silliman's Journal contains a synopsis of a meteorological journal for five years past, by William C. Redfield, Esquire, of New York. From this table it appears, as summed up by Mr. R. "that the average proportion of easterly winds in 1000, for five years is 346. That the average proportion of westerly winds in 1000, for five years is 654. Proportion of east winds in the region of clouds for five years, 76. Of westerly winds for the same time, 924. The westerly *surface* winds are to the eastern in the proportion of two to one; and in the *region of the clouds* during the same period the proportion has been 12 to one."

This synopsis agrees with our observations in Western New-York, almost perfectly, with the exception that the proportion of easterly winds is somewhat less on this side the Allegany ranges than it appears to be on the eastern or Atlantic slope. The difference between the upper and lower currents of air in direction, is much more observable in some seasons than in others, and has been particularly so during the present summer. We have frequently seen the cirri, or fine feathering clouds, in the highest regions of the atmosphere, moving slowly and steadily to the E. or the N. E., while the lower strata of clouds have been rapidly drifting to the S. or, in a few cases, to the S. W., and during the forepart of June, crossing of currents was observed for three days in succession.

The great prevalence of Southwesterly winds in our region, has left its impress in various ways, and had not a single observation been recorded, there could be no doubt of the fact. Our trees, whenever planted so as to be exposed to a free current of air, whether fruit, or ornamental trees, have, with few exceptions, a perceptible inclination to the N. E., or E. Ninety in a hundred of our orchard trees evidence this fact; and, in nearly all cases in our ornamental trees, the weight of branch and foliage will be found on the eastern side. In the forests the highest and flexible branches, particularly those of the pine and hemlock, will be found pointing in the same direction, giving a singular appearance to the woodlands in

which the last named tree predominates. This effect of the prevalence of the southwestern winds should be kept in view when planting or pruning trees in situations exposed to this current of air; the trees planted should be slightly inclined in that direction, that they may offer the more effectual resistance; while in pruning the liability of the branches to spread the most rapidly on the eastern side should not be forgotten. These are a few of the practical inferences which might be drawn from the facts stated by Mr. R. but we must leave them to the consideration of the reader.

SKILLFUL FARMING.

We had the great plasure a few days since, of spending an hour or two at the residence of the Hon. D. Bradley, in Marcellus, Onondaga county. Judge Bradley is one of our most able and valued correspondents; and a vist to his farm will show that the agricultural doctrines he inculcates in his communications, are, in the main, derived from actual experience, and carried into successful effect on his own farm. Though, as he has already intimated in the Farmer, he has disposed of the greater part of his once extensive farm, reserving only a few acres for his own cultivation and experiments, there is enough to illustrate, by its garden-like neatness, cleanness, and good order, what a skillful farmer, who understands his business both in its theory and practice, can accomplish. His fruit orchard, filled with the best and varied assortment of fruits—his kitchen garden with its neatly tended and abundant supply of vegetables—his vinery, principally of the Isabella grape, with the rich looking heavy clusters, and his neat cottage-like house, whith his outbuildings, barns, &c., embowered in acacias of his own planting, prove most satisfactorily that the hand of good taste has presided over all.

Judge Bradley's farm has a superior soil, a result which might be expected from its location. It lies immediately on the line which divides the limestone and shale formations of Western New-York, and, though based on limestone, partakes largely of the decomposed shale which lies above. The northern front of the shale, where the limestone passes under it, rises nearly a hundred feet, exhibiting in several places an excellent opportunity for observing the nature of the shale rock in contact with and above the limestones. This out crop of the shale is broken through by the outlet of the Otisco lake, which lies imbedded in this rock some six or seven miles south; and it is in the valley of this stream, immediately after it leaves the gorge formed by cutting through the shale, that the farms of J. Sandford, Esq., Judge Bradley, and others are situated.

In Judge Bradley's garden we saw an experiment in progress intended to settle two points on which much controversy has been excited among farmers, and on which very different opinions are entertained among practical men.—It is well known that some of our farming friends maintain that chess in wheat is caused by transmutation, or in other words, that wheat in certain circumstances changes to chess; and that this process almost uniformly takes place when damaged, shrunken, inferior grain is used for seed, or the plants suffer injury from cattle or freezing. To test the opinion that attributes chess to damaged or shrunk wheat, Judge Bradley last fall selected some of the worst quality, and the most defective kernels he could procure, and sowed them in his garden, and their produce, as we saw, was not chess or any other weed, but large ears of wheat and a full fine berry. It is also well known that some farmers assert that they care not how much chess they sow with their wheat, as chess never grows, certainly not when sown in the autumn or fall, with winter grain. To expose this heterodox notion, so incompatible with all good farming, Judge Bradley sowed, last fall, a quantity of pure chess and the result has been a most beautiful crop of this plant, enough if mixed with a hundred bushels of seed, to account for its presence in the succeeding crop without recourse to the doctrine of transmutation.

We have but barely alluded to these experiments in this place, as, and we know in common with all the readers of the Farmer, we hope that Judge Bradley's health, which is at present very poor, will become re-established, and he be able to communicate with his own hand a more complete report of these and other interesting experiments, as well as the cumulative evidence he has obtained to fortiy his position that the disease called the hoof-ail is caused by the ergot of grass, principally that of the *poa pratensis*, or June grass of our meadows. Our own acquaintance with that disease, long since led us to the same conclusion; and though, in some cases, freezing of the feet will produce results very similar to that of the ergot, and a low temperature by impeding the circulation of the blood, may create a tendency to disease that shall render the operation of the poison more certain and effective, yet the multitude of cases that have come to our knowledge in which freezing could hardly have, by any possibility, taken place, have confirmed us in the opinion that it is to this poison we are to look for the main exciting cause, and that it should be guarded against accordingly.

METEOROLOGY---JULY.

Average of the thermometer at 9 o'clock 72°, at 2 o'clock 81°. Lowest temperature 21st, 58°, highest temperature on the 4th, 92°. Range for the month 34°. Number of clear days 20. Cloudy 9. Variable 2.—Rain 11 days.

The month of July throughout the northern states has been marked by an elevation of temperature greater than that of almost any previous year. Though unquestionably influenced by local circumstances more or less, in our cities and villages the thermometer in the shade, has ranged for days in succession from 90 to 95°, and in some instances much higher. To afford our readers the means of forming a comparison between the months of June and July of the present year, we subjoin a table of these months for the last 7 years. Time 10 o'clock.

	June.	*July.*
1831	71	71
1832	72	74
1833	62	70
1834	65	76
1835	65	72
1836	66	72
1837	65	68
1838	75	79

"English Agricultural Society."

This is the name of a Society recently instituted in London, and embracing gentlemen of distinction in all parts of the Kingdom, including many of the nobility, members of parliament, clergy, &c. The leading feature of the association is its entire freedom from all party feeling, and in the list of members as given in the Farmers' Magazine, most of the distinguished statesmen, of all parties, are subscribers. That the society will go ahead, cannot well be doubted, when we state that the subscriptions, at the time of formation, amounted to about $30,000. English statesmen feel what they owe to agriculture, and they embrace every opportunity to advance its interest, and place its prosperity on a permanent basis. The contrast, in this respect, between the legislators of Britain and our own country, is not much to the credit of a majority of the latter, who seem to give up to party and sectional feeling what should be devoted to the public good.

BREEDING OF BEARS.

The *Journal des Hares*, a French publication, in describing the breeding of cattle, horses, sheep, &c, in Russia and Poland,, thus describes a source of profit but little known to the American farmer. "Some of these extensive establishments are provided with a third space, or court, enclosed by walls, and with little buildings protected by iron bars. This is destined to be a menagerie for bears of the rarest and most beautiful colors, and yielding the choicest furs. This speculation is a very profitable one. A cub of six months old with black hair pointed with silver white, yields a very light skin and fur, and which will obtain a considerable price, especially if there are others of the same variegated color and fineness sufficient to make a pelisse. A garment of this kind will sometimes be sold for $2,500 to $4,500. The skins of the old bears are employed for the carpets or linings of carriages, or the most supple of them form the clothing of the coachmen."

INDIAN CORN.

Dr. Peter A. Brown, in a most interesting and valuable essay, read before the Society of Natural Science, at Chester, on the history of Indian Corn, its use, and kinds, gives the following fact, as demonstrative that the plant is a native of America, and was not, as some European writers have contended, introduced from the eastern continent.

"The Messeurs Peale, of Philadelphia, always anxious to enrich their museum, a few years since procured from Peru two very interesting collections of Inca mummies.—These mummies, consisting of a man, woman, and child, were dug out of the earth in the desert of Altacama, in the valley of the same name, capitol of the above province of South America. The place was a celebrated deposite of the dead bodies of the ancient Incas. The Peruvians entertained the idea, that after death, they were destined to cross the sea to the west, and hence when they died in the neighboring mountains, their bodies were brought down to this valley to be interred. They also believed that they would require some of the good things of this life to support them on their journey to the 'undiscovered country,' they therefore enclosed with the bodies portions of provisions.

"After the mummies in question, were brought to Philadelphia, they were carefully unwrapt, and inside of the envelope were found mate, (an herb) mixed with lime, several small bags of Indian corn meal, and *one ear of Indian corn.* Now we know from history, that Pizarro, in order to facilitate the conversion of the natives, in 1555, forbid all interments in Arica, and from that period this valley has remained a desert; we have, therefore, the positive proof that at least 382 years ago, (and how much longer we cannot tell) Indian corn was the food of the Peruvians."

Draining by Steam.

Joseph Glynn has received the gold medal of the Society of Arts, for a communication on his application of steam power to draining fens, or extensive marshes. The process consists in excavating broad ditches through the fens, and applying stationary steam power at their termination, or lower side, to raise the water to a higher level, that it may pass off. His letter, with the estimates it embraces, is one of great interest to the civil engineer, and augurs favorably to the landed interests. Mr. G. had been employed in eleven districts, and had already drained about 90,000 acres, the value of a portion of which has in consequence been increased from £10 and £20 to £50 and £70 per acre. One tract contained 25,000 acres, and was completely drained and kept dry by two engines of 60 and 80 horse power. An 80 horse power engine, working 12 hours in a day, raised from 19 to 25 millions ons of water in a year.—*Cultivator.*

An Acre of Land Contains

4	Roods, each rood 40 rods, poles or perches.
160	Rods, 16½ feet each.
4,840	Square yards, 9 feet each.
43,560	Square feet, 144 inches.
174,240	Squares of 6 inches each, 36 inches.
6,272,640	Inches, or squares of one inch each.

Convertible Husbandry.

The convertible system is nothing more than the application of capital and labor to cultivation under a different system; and the difference between the mode of agriculture, practised in North and South Britain, lies in the method of that application. Under the convertible system, every field has its regular alternate share of cropping and manuring. In England,* one part of the farm is kept in grass, and must on no account be ploughed, the other pays best by being ploughed and cropped perpetually. The one farmer drains wet lands, and adopts every improvement any way calculated to advance his purpose, the other rejects any alteration on certain established modes of proceeding which must not be altered; the one spares neither labor nor expense in increasing the produce, the other will make no expenditure, under the belief that any other mode of farming than his own will not pay.—*Farm. Mag.*

* Although the English system of farming is extolled among us, yet in some districts the management is bad; and in all districts, perhaps, excepting Norfolk, inferior to what it is in Scotland.

COMMUNICATIONS.

Farmers should raise more Cattle.

Mr. Tucker—I saw an article in your last Genesee Farmer, giving an account of debt and credit between Uncle Sam and his neighbors, in the sale and purchase of grain, in which there appears to be a balance against him for last year of $1,206,813—also a very heavy balance against him for the purchase of silks and sugar. No notice is taken of the sales of his cotton, tobacco and rice, in which his account may give a greater balance in his favor.*

There is another article in his farming operations which I think is greatly neglected and much to his loss and inconvenience,—that is, neglecting his heards of cattle. My object in writing this article, is to call your attention to the subject, and that of your correspondents; and if I am correct in the view I have taken of the subject, I trust a different course will be adopted and pursued. If I am in error in my estimate and statements, and if you have evidence to vary the estimate, please to adduce it.

1st. I assume to say that the farmers of Western New-York, have generally abandoned the raising of neat cattle and turned their attention to the raising of wheat and wool.

2d. I assume to say, that there is much greater demand now for beef, butter, cheese, and also for the labor of the ox, than at any former period; that beef, butter and cheese being the essential articles (except bread) for the consumption of a city, village and a manufacturing population.

3d. I also assume to say that a very great demand is now opening in the south-western states and along the whole Valley of the Mississippi, and that an extensive business is now doing at Boston, New-York, and Philadelphia, by sending butter, cheese, and beef from these cities by way of Cape Florida and New Orleans, to the Valley of the Mississippi, and even to ascend that river as far as the states of Missouri, and Illinois.

As a specimen of the dealing in those articles, I will give you a few advertisements taken from a Natchez paper of last year.

Fresh Groceries.—Just received, from Philadelphia, New-York, and Boston, among which are mess shad, Goshen butter, Goshen cheese, No, 1.
Dashel & Mason.

Just received, on consignment 20 barrels of *New-York Fly market*, pickled beef, put up expressly for family use—also 15 firkins fresh butter. Jacob Sovia & Co.

Groceries and Wines. Just received a supply of shad, salmon, Goshen butter, Goshen cheese, 30 boxes superior champaign cider. Sutton & Brown.

Prices at Natchez. Pork, mess $26; beef, prime $15: Goshem Cheese $20 a 25; butter, fresh, 37½ a 62½.

The Southern States cannot raise cattle to advantage, the climate being unfavorable, and in most of the slave holding states, the making of butter and cheese is not attempted; thus most of the inhabitannts of the Valley of the Mississippi, and the Southern States depend upon a supply from the Northern States. This probably accounts for the excessive high price of stock as appears at the late sale in Cincinnati the 2d July inst. of the Durham breed of cattle, which are supposed to be the best breed for milk, the cows selling at about $700 each. This must be a loud call to the farmers of Western New-York, and especially to the farmers of Allegany, Cattaraugus, Chatauque, (which counties are the best in the state for grazing,) to improve the advantages they possess of raising stock; and of a cheap and easy transportation down the Allegany, and Ohio, which may be done according to the report of the Secretary of war, at the rate of two-thirds of a cent per ton per mile, when the improvements he suggests are made.

The price of butter I suppose to be as follows in the principal cities of the United States:—Boston, from 12 to 18 cents,—New-York, from 18 to 21,—Philadelphia from 18 to 25,—Baltimore, from 20 to 30,—Charleston, from 30 to 40,—New Orleans, and Natchez, from 37 to 62.
M. B.

Brooksgrove, 20th July, 1838.

*I would, however, remark that the three last years have been unfavorable for the growth of grain, especially the coarse grains, and that the changes that have taken place in the United States of withdrawing from agricultural pursuits and joining the manufacturing classes has made a deficiency of that article more likely to occur now, than at any former period.

SOUR KROUT.

Mr. Tucker—The manner of preparing this article of food, is not as generally known as its value entitles it to be; and with a desire to extend it to the benefit of your readers, I have written this for publication in your paper.

In the fall, after we have had two or three freezing nights, collect as many solid heads of cabbage as you wish to preserve, salt up, (say fifty for a family of 6 or 8 persons,) take off all the green and imperfect leaves, cut each head lengthwise through the heart, and cut that clean out. A cabbage knife should now be procured on which the cabbage should be cut fine, and a strong cedar or other barrel, previously well soaked and cleaned at hand, the bottom of which to be laid over with cabbage leaves; fine salt now to be well mixed with portions of the cabbage in the proportion of a pint of the former to a heaped bushel of the latter, and these gradually packed in the barrel by gently stamping with a suitable wooden rammer. When the barrel is nearly full, it should be placed in a cool dry cellar, on boards, the bottom secured from pressing out; a barrel head or pieces of boards laid on the top of the cabbage, and a heavy weight laid on them. In a week or ten days the pickle should cover the cabbage, or a weak brine must be prepared and poured over, when fermentation will commence; and from this time to the end of the season, once a week, the froth should be skimmed off, and the boards, weight, and sides of the barrel, cleanly washed. At the end of two weeks it will be fit to cook; and as much of its savoury and salutary quality depends on this, I will describe the manner I do it. I take up at a time as much as will make two messes, (as warming up what is left the first day is no injury to it;) put it in a tin boiler with a piece of fat pork; and, if I have it, a spoonful or two of goose or other dripping, and just sufficient water to boil it nearly dry over a smart fire in 3 hours. Boiled potatoes should always be eaten along with sour krout, as alone it is too fat, cooked in this manner, to make a meal. The potatoes are better boiled in a separate vessel, but they can be boiled with the krout; though very apt to get heavy. Sour krout should be all used before the approach of warm weather, as the quantity of salt, here recommended is too small to preserve it. When it is intended to be used on ship board in a warmer climate, more salt is necessary, and in that case it should be rinsed or soaked in fresh water before cooking.
Winter Diet.

Setzler's Store, (Pa.) July 28, 1838.

Cheese Maggots.

Mr. Tucker—A friend of mine in this township, pretty extensively engaged in the manufacture of cheese, complained to me sometime ago of the ravages of the maggot fly. My advice was that he should try to protect his cheeses by an application of pyroligneous acid. He did so accordingly, by anointing with that acid the cracks and fissures in which this insect generally deposites its eggs. On inquiring the other day as to the result of his experiment, I found that, while the cheeses that had not been so treated were still suffering, those which had been anointed with the acid were quite free from maggots.

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Buckwheat Cakes.

The January number of your Monthly Farmer for 1837 (page 16,) contains a recipe for making buckwheat cakes with carbonate of soda and tartaric acid. Permit me to suggest that a spoonful of muriatic acid (spirit of salt) be substituted for the tartaric acid. The produce (muriate of soda, common salt) will be much more palatable than the tartrate of soda, which must be generated by the union of the tartaric acid and soda, as directed in the recipe.
W. C.

Chinguacousy, U. C. July, 1838.

Books on Agriculture, for School Boys.

We have thought the cause of agricultural improvement would be greatly promoted by the publication of a series of elementary books on agriculture, designed for the use of the schoolboy. Why should not our children have facilities for the acquisition of knowledge applicable to this pursuit as well as on less useful ones? If education is designed to fit us to engage in the practical duties of life, why is it that the most important of all earthly subjects, and one which occupies the labors of a vast majority of our people, is not the leading object of the schoolboy's education? We have elementary books on every other subject; we have schools wherein are taught the rudiments of every science, schools of law, medicine, divinity, of fighting, dancing, and of every thing but of agriculture. There is something wrong in the national practice on this subject. We ought to give to the most important subjects, the highest degre of attention—we must graduate various branches of education, by the standard of their relative importance, and give to those having the nearest relation to our most important interests, the greatest share of favor.—We ought to have the principles of husbandry taught in every common school and a chair of agriculture endowed in every college. And we think the first step to the introduction of this new branch of education is, to have the necessary elementary schoolbooks. We have many men in our country, eminently capable of compiling such works and adapting them precisely to the capacity of the schoolboy. And he who would prepare a set of works on agriculture for the use of schools, such as would give to the boys of the country destined for the pursuits of husbandry, a thorough knowledge of the principles and the outlines of the practice of agriculture, would do more for the general good and for his own literary fame, than in any other walk of science or learning. Let it not be supposed that we decry other branches of science or learning. We are in favor of all; and especially those which contribute useful aids in the practical labors of life. We would render all subservient to man's use; and it is only in this view that they should be appreciated. But it is admitted on all hands, that agriculture is the most universal, the most dignified, the most congenial, virtuous and productive pursuit of mankind—the substratum of all other pursuits—the life and soul of commerce and manufactures—the mother of the arts and sciences—the basis of civilization; and we insist, it is *not* seeking too much when we seek to give to her own child, the husbandman, a higher grade of education. Whatever description of knowledge, relates nearly or remotely, to the multifarious labors of the agriculturist, should be an object of his study and constitute a portion of his exercises at the primary school and and the college, and employ his reflections in all the riper years of after life. One of the most absurd and mischievous errors of the day, is that of the father, who gives to the son destined for a farmer, an education, inferior to that he bestows upon the one destined for a profession. The husbandman deserves a better education than a lawyer, or a doctor; because his occupation requires the exercise of more knowledge; but it is too generally the case, that he is only allowed some snatched intervals between the crops, "to learn to read, write and cipher"—and this is deemed education enough for a farmer! Oh, what a wretched miserable error is this—what a foe to the improvement and dignity of the class! It ought, it must be banished and the practice which results from it abolished, and a wiser and better one substituted. Now, however the remark may seem to censure the general opinion and practice on this subject, and although we may be even ridiculed by many farmers themselves, for the apparent ultraism of the sentiment, we are bold to declare, nevertheless, that the farmer *has need* of a better education, and he actually more often requires the aid of more various branches of science, in his ramified operations, than the member of *any* profession; and we sincerely believe, that if any discrimination should be made in the education of two sons, one destined for a farmer and the other for a profession, it should be in favor of the former. Let us not be misunderstood—the boy destined for a profession or trade, should be thoroughly educated in all the branches pertaining to his distinct calling; while the boy intended for a farmer, should be thoroughly instructed in all the principles to which the intelligent and scientific agriculturist stands indebted for the successful result of his labors.—We could easily show that these principles are drawn from a wider range of sciences, than are necessary to be consulted by one destined for any of the so-styled *learned* professions; and consequently it would be shown, that the husbandman needs a more extended education. A young man preparing for the bar, is ready to enter upon his legal studies, on attaining some smattering of Latin (or it may be Greek;) and many do not even go thus far, before taking up Blackstone. A short course of reading elementary works on the principles and practice of law, and the student enters upon the practical field of his profession.—The physician requires more preparation to qualify him for practice. He, too, learns the dead languages and studies the principles and practice of his art, but those principles involve a knowledge of various abstract scien-

ces and he is constrained to invoke the aid of anatomy, physiology, chemistry, mineralogy, botany, &c. &c., before he enters upon the practice of his profession. We are speaking of those studies only as they relate to the *professional* qualifications of the student, and of course we are not to be understood, as denying either the possession or the importance of other branches of learning to professional men. They, as well as agriculturists and others, in their social and political relations to community, are equally required to discharge the duties of *citizens;* and we hold that all classes should avail themselves of every accomplishment which learning or science can bestow, in aid of the performance of those high duties.—But we need not array comparisons or illustrations on the subject; our opinions may be presented at one view. We would give to every one, of whatever pursuit, precisely the education adapted to it—and it should be thorough and perfect in all its branches, or at least so far as any or all the branches related to the peculiar pursuits adopted by the student. It should thus qualify him for the intelligent prosecution of the labors of his life and ensure his complete success. It would render the farmer as illustrious, and certainly as useful, in his sphere, as the profoundest statesman or professor. But the subject is too interesting to be treated satisfactorily in the narrow limits to which we are circumscribed; and we mean to pursue it. In the meantime we submit to the board of education and to the commissioners of common schools, the propriety of early considering the importance of adopting a series of agricultural works, as text books in the schools about to be put in operation, under the excellent common school law of the state. They may do incalculable good to the children of Kentucky, which will flow to other generations, and they may render the system far more useful and effective, by seasonably directing their earnest attention to the subject.—*Franklin (Ky.) Farmer.*

Letter from Dr. D. Stebbins.

Of Northampton, Mass., to the Congressional Committee on Agriculture.

I have received a communication from the committee on agriculture, dated Washington City, January 30, 1838, for answers to several interrogatories about the culture of the mulberry and sugar-beet. The committee must be aware that the silk business of America is but in its infancy; yet, knowledge of the subject is constantly on the increase. Improvements are made from year to year, not only in the culture of the mulberry; but in the manufacture of the article of silk. Let it not, therefore, be thought wonderful, if it should be found necessary hereafter, to abandon our present opinion, practice or culture, and machinery used in the manufacture, for a better mode and more simple machinery, and so cheap as to take place of the domestic wheel, reel and loom. If, in either respect, any improvement can be made, Yankee perseverance and ingenuity will discover it.

The committee will please accept of the aid of Edward Church, Esq., of this place, who has long resided in France; and, while there, became very much interested in the subject of sugar from the beet; I presume that he possesses as much information on that subject, or even more, than almost any person in the United States, and have engaged him to reply to the subject of beet-sugar.

On the subject, or respecting the culture of the mulberry, it would afford me great pleasure to present the committee with an *infallible* mode of treatment, which would be applicable to every variety of climate, and the inconstancy of the weather for several years past. But so variable have been the seasons, that the successful mode of culture and protection of the tree during one year, has disappointed the cultivator the next year.

1. In reply to the first question; I began the examination of the mulberry business several years since; but did not commence the cultivation of the multicaulis until 1833, and ever since have carefully watched the progress.

2. Respecting *soil, situation,* and *exposure;* I have found that our *poor, light, dry,* and even gravelly soil, is better adapted to the culture of the multicaulis, than our richest lands. The *location* or *situation,* should be high, or elevated above the danger of water collecting about the roots.

On such soils, although the trees would not attain the height of trees grown on rich land, yet the foliage would be more numerous; and the chance of having the trees ripen, or form hard wood for cuttings, and sustaining our winters, would be enhanced.

3. Respecting the *most valuable mulberry* for cultivation; its capability to endure the *cold* and *frost;* the *quantity* and *quality* of foliage; *labor* of culture, and *stripping.* These questions will be answered with reference to this climate; and will include not only my own observation and experience, but the experience of others of my acquaintance, in whose opinion I have the utmost confidence.

I commenced with the *Italian* white mulberry, and have used also the *black* and *red* mulberry; each of which requires good soil; no matter how rich. I found that, although the worms would feed well on t ese, yet they were equally fond of the multicaulis, which was selected for its large leaf, nutritious quality, and tender fibre, which the worms can eat, while the fibres or ribs of the white mulberry are so ligneous as not to be edible. Eighty pounds of multicaulis foliage are considered equal to one hundred pounds of the Italian white, for feeding worms.

The tree or shrub commonly known as the multicaulis, was found in a garden in *Manilla,* cultivated as a tree of ornament; and, to distinguish this from all other mulberries, is now called the *Manilla multicaulis,* and particularly to distinguish it from *another tree,* more deserving of *multicaulis,* on account of its capacity to produce more numerous stalks and branches.

Although the *Manilla multicaulis* has a very large leaf, grows rapidly, and the silk worm is fond of it; yet, in consequence of its rapid growth the stalks are often so green and tender, that, when overtaken by early frost, they are liable to be injured, before the wood has been sufficiently formed to endure cold and frost.

Nevertheless, the *Manilla* multicaulis is so valuable a tree, that experienced cultivators have told me that, if it should become necessary to take them up every autumn, protect them during winter, and re-set every spring, it would be much better than to cultivate the white mulberry; and that the culture of an acre of mulberry would require no more labor and expense than that required for an acre of Indian corn.

But there is another mulberry alluded to—the *Canton* multicaulis—so called from the place of its deriviation, being the product of seed which the *Canton mission* were requested to procure, being considered the very best and most approved mulberry used by the Chinese, and is believed to be the first genuine seed ever imported into this or any other country. It was obtained under very unfavorable circumstances, such as have not often occurred; and the same mission have recently forwarded more seed for next spring's use.

That the *Canton* multicaulis is the true kind used by the Chinese, is made evident from a set of historical paintings from China, and from the seed growing at the foot of the stalk, different from other mulberries.

From the experience I have had, I concur in opinion with those who have cultivated the several kinds of mulberry, that the *Canton* multicaulis is deserving of the first consideration, and to be preferred to all others; not only on account of its equal capability of enduring cold and frost, but from the number, quality, and size of the leaf. Although not so large as the Manilla leaf, yet a leaf of the same size, is considered much heavier than the Manilla—some say double the weight.

I have cocoons in possession, made by worms which were fed exclusively on the foliage of the white mulberry; and another parcel fed exclusively upon the foliage of the *Canton.* The latter have a lustre and brilliancy far surpassing the former; and the difference is nearly as great as between the Merino and wool of native sheep.

It is the opinion of horticulturists and those best acquainted with the propagation of trees or plants from seeds, that trees from seed withstand the severity of climate better than trees propagated by any other mode.

Another circumstance occurred last autumn, in favor of the *Canton:* I had the *Canton* and *Manilla* trees, and another kind, called the *Asiatic* seedling, growing side-by-side in my garden, each having the same exposure to an untimely and severe frost, when the *Manilla* was much injured, the *Canton* and *Asiatic* escaped unhurt; and two other kinds, called the Chinese and Smyrna, were uninjured.

These seedlings, we hope, will be a most valuable acquisition to the list of mulberries adapted to the feeding of worms, and enduring the cold and frost; nevertheless, great caution is necessary in the use of imported seed; for instance, seed grown upon the multicaulis tree, will not produce a plant like the original tree; at least, it has so proved under my observation. The leaf is different in shape, and not one-fourth so large as the original; neither do the seeds produce trees which furnish a uniform leaf in shape or size. There is often deception in seed procured at foreign seed-stores; sometimes the vitality of the seed is destroyed, or otherwise injured by neglect. For these and other reasons which might be offered, purchasers of seed have been disappointed, and the mulberry cause injured; because they have expected too much, or that, by the seed of a certain *name,* they should obtain the genuine tree. The peach, apple, and some other trees, from seed or stone fruit, when planted, produce a great variety; perhaps not one seed in a thousand shall produce a tree, in all respects, like the original. It is advisable to have no dependence on the seed, but to procure trees which have developed the true character.

Having mentioned the *Canton* mulberry as first on the list, yet some, who do not know the Canton, would have the Manilla stand at the head of the list of the most valuable mulberries. The *Asiatic* and *Chinese* may be the next best, on account of their capability of enduring cold and frost; the leaf of which, in shape, resembles the *Canton,* but not so large; each of which, however, on account or the numerous buds on the stalks, may produce as much weight of foliage, and of as good quality, as the Manilla multicaulis of the same age. But should the Manilla multicaulis utterly fail of acclimation in this latitude, resort may be had to the *Canton, Asiatic, Chinese,* and some others which have been propagated from the seed, and give fair promise of adaptation to this climate.

In a more favored clime, the last year, these trees attained a much greater height and larger leaf, than in this place.

4. Respecting the *best mode* of cultivation, *stripping, value, expense,* and *profit,* of an acre of mulberry, I shall not only communicate my own experience, but that of the most skilful cultivators in this regoin.

In *this climate,* the culture, setting out mulberry roots, or cuttings, commences at the usual time of making our gardens, after the spring frosts, and when the earth has been suitably warmed by the sun—last of April or beginning of May; and soon as the foliage has grown to the size of an apple-leaf, or the full size of the white mulberry leaf, (about the 15th or 20th of June,) the eggs may be brought out for hatching; and if they can be kept back, so as to be hatched at different times, as the foliage multiplies, the cultivator will have the advantage of several crops in succession from the same lot of eggs—a much better way than to breed *in-and-in,* as it is called. Eggs may be preserved during winter in a cool place; freezing does not injure them; but before spring, they should be secured in glass bottles corked tight, to exclude the external air, and each bottle of eggs put into an ice-house, placed on a *cake* of *ice;* if set upon a shelf, they would hatch, even in an ice-house. Eggs thus secured, may be kept back, save much labor, time, and expense. As one class of worms are advanced, another can succeed them on the same shelves or hurdles. In this way, the same number of trees would feed double the usual quantity of worms.

In gathering the foliage, the buds must not be injured, nor the extreme ends of the limbs deprived of the leaves, leaving two or three leaves at the end untouched; commencing on one side of the field, and when once gone over, there will be a new crop of leaves ready at the place of beginning; and thus the foliage may be gathered several times from the same shrub or tree, whether the product of a root or cutting. I had roots and cuttings set out last spring, the foliage of which was gathered three or four times from the same trees, without injury; indeed the trees apparently grow better by having the leaves taken off so frequently, always leaving the buds uninjured, and the extreme ends of the branches without stipping. Instead of stripping the leaves, each leaf should be taken separate; if the bud should be injured, it would be spoiled for a cutting, or even foliage. Frequent defoliation of the mulberry does not injure it, although such treatment would spoil some other trees.

When trees are started from cuttings, it will often be found that a shoot will grow several inches before there is any root formed; in this case the support is derived from the atmosphere, instead of any assistance from the root, as is usual with other trees.

Vegetables of rapid growth are said to perspire their weight in twenty-four hours; this rapid evaporation or perspiration will account for so many cuttings failing to become trees; the leaves become discolored, wilt, and the plant is ruined. But to avoid this, let the cuttings be watered in dry weather, and take off the leaves until roots shall be formed.

Respecting the *cultivation,* the earth may be stirred or the trees hoed so frequently as to prevent the weeds growing; but not after the first of August, that the trees must have opportunity to form wood; and the location must be so elevated and dry as to be out of the way of water setting near the plants.

Respecting the *value* of an acre set with mulberry, it depends on the price of the mulberry and number of trees set therein. If the trees are set 2½ feet apart in the rows, and the rows 3 feet apart, an acre would take 5,808 trees, which at 25 cents each, would be worth $1,452. Some prefer to have the rows 4 feet apart, and 2 feet apart in the rows; in this case it would require 5,445 trees to the acre. But provided an acre of ground shall be set with cuttings, the rows 2 feet apart, and 1½ foot apart in the rows, 14,520 cuttings might be set in an acre, which at $30 cost per 1,000 or 3 cents, would amount to $453 60, to stock an acre. It may be understood that a purchaser wishing to stock an acre of ground, the trees and cuttings could be purchased at a less price than above stated.

Taking into consideration the number of trees the most proper for an acre, and a reasonable price for the trees, the *average* price of an acre of land set with mulberries, including the land, might be worth from 750 and 1,000 dollars investment.

The *cultivation* of an acre of mulberry would, of itself, be no more than that of an acre of corn; but, including the *gathering* the leaves, *feeding* the worms, and *reeling* the silk, need not exceed 200 dollars. The *profits* of an acre of mulberry would depend upon the fidelity with

which the worms are fed, and the quantity of raw silk made from the cocoons.

Some cultivators assert that an acre of ground set with mulberry will, the second year, produce foliage sufficient to feed 1,000,000 of worms, and that number of cocoons will make 333⅓ lbs. of silk. I have no personal knowledge of one acre having been set apart for that purpose; but from experiments made with certain number of trees, in proportion to the acre, it has been ascertained that 100 lbs. of raw silk may be made from an acre the first year of setting out; and if the roots can be preserved without removal during the winter, a much greater quantity of foliage would be furnished, and, of course, a greater quantity of silk might be made the second and third year; so that the maximum might be 300 lbs. or more of silk to the acre. But assuming the minimum quantity, (100 lbs. from an acre,) it would yield the cultivator a greater profit than from any other product from the soil.

The last year I requested several cultivators to make thorough experiments to ascertain the *certain* profits of an acre. Only one, however, met the application with the precision desired. He, by strict economy of time, labor, and expense, although he gave *three* dollars per week and board, to two experienced females, as teachers in gathering foliage, feeding worms, and reeling silk, found that his silk cost him only *two dollars* the pound, and estimates his silk worth at least six to seven dollars the pound, on account of excellency of the reeling, for which he has the liberal bounty of the state, and also a premium from the Agricultural Society. The quantity and value of silk depend on the skill and perfection of reeling.

The value of *American* silk far exceeds the imported raw silk, not only in lustre, but strength of fibre, and the small comparative waste in the manufacture; and is probably worth 25 per cent over the imported article of raw silk.

The same cultivator informs me that, the last year, being a year of experiment, attended with loss of time and expense, which he can avoid another year, he feels confident that he can hereafter make raw silk at $1 50 per pound.

5. Respecting the most valuable silk worm: perhaps the large gray or black one-crop worm on all accounts is equal to any other. There are several varieties of worms —one called the two-crop worm: but one good yield is worth more than two poor ones, with imperfect cocoons.

In China, where several crops are taken in succession, from hatching eggs of the preceding crop, it has been found that the quality of each succeeding crop of silk is deteriorated, and that silk grown in the elevated or northern regions of China, uniformly commands or obtains 30 per cent more for any quantity of silk, than for silk grown in the warmer latitudes; and for the same reason that American silk is superior to that imported. It has been thought that the Chinese seldom or never export the silk grown in the cool regions, but that it is retained for the superior fabrics. Eggs, to be of good quality, must have the maturity of age. The usual time of hatching the first parcel of eggs, in *this climate*, is from the 15th to the 20th of June, or as soon as the mulberry-leaves have a size to commence gathering. 3000 worms, (or even 2000 or 2400, if well attended,) will make cocoons sufficient for one pound of silk.

The *quantity*, *quality* and *value*, and *market* of cocoons, depend very much on the attention of feeding the worms, ventilation and cleanliness of the cocoonery; in cold seasons the worms do not make so perfect cocoons as when the weather is mild during the time of feeding.

As to a market for cocoons, the several silk factories and reeling establishments will readily purchase or reel them on hire; and that the producer should receive the benefit of good cocoons, instead of purchasing by the pound, a fair price would be given for any quantity yielding a pound of silk. The cultivator must, therefore, see the propriety of so faithfully feeding the worms as to produce hard and sound cocoons.

But the cultivator would derive the greatest profit by reeling his own cocoons, as every family might do with very little expense.

6. The legislature of Massachusetts give a generous bounty to encourage the growth of silk—about sufficient to cover all the expense of gathering the leaves, feeding the worms, and reeling the silk; so that every pound of silk raised and made in Massachusetts may be considered a clear profit to the cultivator; rent of the land, taxes, and interest of investment not included. Nevertheless, even these items may be overcome in a very short time.

The legislature of Massachusetts offer a bounty, on the manufacture of beets into sugar, of three cents on the pound—probably sufficient to cover the expense of manufacture.

Finally. On the subject of mulberry and silk, although it has engrossed much of my time and attention under the most anxious solicitude for its success, and with the persuasion that it would ultimately be found the most lucrative business which the cultivator of the soil could pursue, yet, that any certain infallible rules and modes of procedure, can at this early stage of the business be pointed out as applicable to all future years, I do not believe. *But there must be a starting point*, and we must be guided by the best light now before us. It is with great diffidence I enter on the subject to be laid before the committee of Congress, being aware that I may differ in *sentiment*, *practice*, and *opinion* from other more experienced cultivators, and that it may be found expedient hereafter to relinquish present and adopt new measures. But when intelligence shall be received and laid before the committee from various sections of the United States, I feel confident that the committee will find matter to report favorably on the culture of silk in this country.

Respectfully yours, DANIEL STEBBINS.

Northampton, Mass., February 10, 1838.

P. S. There are in this place, two large silk factories doing a profitable business.—(*Va.*) *Farmers' Register.*

From the Farmer and Gardener.

Building Stone Fence.

Much error has prevailed in the manner of building stone fence, and error in this matter is attended with serious loss to the farmer, since there is no kind of fence, in ordinary use, so expensive, and if well built, so cheap in the end. A few observations upon this subject may not be amiss to those who are desirous of constructing this fence.

The first material error, but too common, has arisen from giving to the wall too wide a foundation, as much as 3 feet, 3½, and sometimes 4 feet, and then by drawing it in, or to use a mason's term, battering too much. Two evils spring from this mode of building; the fence is very apt to bulge, or split in two, and the facility for sheep or hogs to run over it, is as obvious as the fact itself is common. Again: fence built after this manner takes more stone than is really necessary, and however abundant the material may be, the mode of construction is radically wrong. The fence, which I have as yet built, about 200 yards is after this fashion: 2½ feet wide at bottom, and 1½ at top—height 4½ feet—a trench over 2½ feet wide, and about five inches deep, is first made, and rarely more so, unless on ground liable to wash, as by a road side, ascending a hill, where a deep gully has been made: on stony ground, it may be dispensed with; but otherwise it is safe to dig a shallow foundation, as the action of the frost is thereby prevented, and which, I am very confident, has proved injurious in a high degree, when this precaution has been overlooked.

A fence of these dimensions, of good stone, and built by a skilful workman, I feel well assured may endure for ages. But the laying of the stone aright is an object of the greatest importance; without especial care in this, serious mischief will follow. As a general rule then, indeed almost invariably, the stone ought to be placed crosswise and not lengthwise of the fence (a very common practice to give it a pretty facing) and although in comparison, but few will be found long enough to go through and thus serve as *binders*, yet many will pass more than half way, and so by overlaying alernately from side to side, the middle will be kept well bound, and the whole structure solid and compact. It is obvious to reason, as it has often been proved by experiment, that by laying stones lengthwise of the fence, and filling in the centre with small pieces, speedy delapidation must take place. In short, with some modification, the rules, which govern in masonry, should be observed in the construction of this fence. Now the only material variation, which I would suggest, is this: the masons (to adopt their terms) use *stretchers* chiefly and *headers* occasionally to bind the wall; but they use mortar, and that without stint, to consolidate the structure. As masons use stretchers to give a handsome facing, and mortar to impart strength, let the stone fence builder use headers altogether, or nearly, as he cannot be allowed any cement. Let me give an example. Take a stone 15 inches long and 4 wide, or 2 feet long and 6 inches wide, and put them across the fence, instead of lengthwise; is it not manifest, that they will be infinitely less liable to be displaced? I grant that stones may be placed lengthwise with great safety, provided especial care be taken to have the next course put on transversely; but it should be borne in mind, that it is not easy always to procure stone for this purpose of sufficiently good quality, for in this case, the stone should pass entirely through, whereas if all pass inwards or across, stone of an inferior quality will make a very substantial fence.

Thus you have the breadth at bottom and top, and the height and mode of building as practised by myself. Some of my fence has been built 9 years, and is as good in all respects as when first made. In passing, it is to the eye apparently perpendicular. No animal will attempt to leap over it. On top I place flat stones the width of the fence; this prevents the smaller stones from being knocked off. If stakes and rails were put on, they would serve nearly the same purpose; in which case, the height might not be quite so great, say 4 feet 2 inches. The cost is greater than post and rail, but if *well built*, there is an end to future labor, expense and repairs.

A VIRGINIAN FARMER.

From the Nolthampton Courier.

On Reclaiming Land.

To the Executive Committee of the Hampshire, Hampden and Franklin Agricultural Society:

GENTLEMEN,—Agreeably to your request, I submit a more particular statement of the process and result of reclaiming the land on which your premium "on reclaimed land" was last given.

The ground in question was a strip of low land, or succession of wet hollows with several branches, varying in width from two to ten rods, and containing altogether, including the adjoining banks, about five acres. Its former produce was brush, brakes, weeds, and swamp hay, mostly sedge. Of the latter, it had given perhaps three or four loads yearly, which was worth but little more than the expense of harvesting. In August, 1831, the bushes and brakes, which grew mostly on the banks or borders of the wet land, were cleared off and the whole ground was ploughed—a ditch having previously been cut along the foot of an adjoining side-hill, to intercept and take off several springs that were adding largely to the amount of water in the low ground, which from other sources was so abundant in many places as to destroy useful vegetation. A free course for the water through the lowest part of the ground was obtained by turning a few furrows each way from the centre or lowest part, and running the plough once or twice through after the sod was turned, and shoveling out the loose earth that fell in behind the plough. The same method was adopted to make drains on the outsides of the low land, as near the foot of the winding banks as the furrows could be turned, to cut off the small oozing springs which were constantly sending their waters over its surface. These water-furrows or ditches led into, and were finished in the same manner as the ditch in the centre. This arrangement at the commencement of the ploughing gave a dry surface during the further operations, and admitted the sideling banks to be conveniently turned down the hill in ploughing, without impeding the course of the water, and saved considerable expense of hand labor in ditching.

When ploughing, especial care was taken that the whole surface should be turned over with a good even furrow so as entirely to cover in and smother the worthless herbage; and where it could be done without bringing up the cold subsoil, it was turned from five to eight inches deep. To perform the operation thoroughly and make smooth work, one and sometimes two men with hooks or hoes, to follow the ploughman and remove roots, stumps or old logs drawn out, or arrange broken or misplaced furrow-slices, were necessary. A plough of larger than ordinary size, and constructed expressly for the purpose, was used, with a knife attached, sharp and strong enough to hold two yoke of oxen at a stump or root—and to this instrument, with few exceptions, green roots not exceeding one and a half or two inches in diameter, presented no serious obstacle; and brake bogs, commonly called 'nigger heads,' were cut through and laid over as handsomely as one could wish, presenting a surface of soft mould sufficiently deep to give a good finish, and better adapted to the reception of grass seed than the same ground could have been by the extra number of ploughings and cross-ploughings, and quantum of harrowing and dragging, and upsetting and rolling of sods in a three years course, that is frequently thought necessary to bring land of this description into order.

After ploughing, the ground was rolled and harrowed fine, and sown with clover, herdsgrass and red top seed, and finished by again rolling. No manure was put on, although a part of the ground would have been benefitted by its application. Much the largest portion of it, however, was a bed of rich vegetable matter, from four or five inches to two feet deep, slightly intermixed with sand washed in from the adjoining high ground, and well decomposed—the fertility of which would have been but little increased by the addition of barnyard manure. All that seemed necessary to insure good crops of grass on this part was to lay the ground dry, extirpate the old occupants of the soil, and expose to the light a clean surface well stocked with young plants of the cultivated grasses. In one place of a few square rods the stratum of black mould was only about two inches deep, resting on a light bluish clayey subsoil, of which it was thought necessary to turn up an inch or two when ploughing, in order to effectually destroy the short sedge grass with which this spot was covered. On this the grass seed did not vegetate except where it fell between the furrow-slices and had an opportunity of striking root in the black mould beneath; and the next season it presented regular rows of grass, with spaces of bare ground about a foot wide between, which have since been gradually yielding to the influence of sun and atmosphere, until the whole is covered with grass of good quality;—and the crops, though light, are much more valuable than formerly. On this spot, manure, or compost, or even good soil, could have been applied at the time of sowing the grass seed with undoubted advantage.

Estimating the labor of a man at one dollar per day, and the same price for a pair of cattle, the whole expense of the labor was about fifty dollars, or ten dollars per acre.

A very large proportion of this expense was for breaking down and smoothing the rough, and, in many places, precipitous, banks which were filled with roots, altogether rendering the process slow and tedious. In 1835, the product (without weighing) was thought to be something less than one ton per acre of good hay. In 1836, the grass was about equal proportions of the kinds sown, and lodged on some of the lowest ground for one or two weeks before cutting. The average product was estimated to be two tons per acre of first quality hay, and the value of the crop standing was at least equal to the whole expense of the improvement. In 1837, the crop was fair, but not as good as that of the preceding year, on account of accidental stoppages of water in some of the furrow-drains, which were not seasonably cleared out,—not being fully aware of the mischevious tendency of stagnant water, so soon to weaken the cultivated grasses, and animate their seeds and wake to new life the old settlers, whose repose it was important should remain unbroken and perpetual, unless the good qualtities of polypode and bulrushes become better appreciated. The effects of the casualty are seen the present season in the various aquatic plants and grasses, mingled more or less with an otherwise good crop of grass; evincing that the ground will require a second ploughing much sooner than would otherwise have been necessary. The expense of ploughing, however, when it does become expedient, will probably not exceed one quarter of the expense of the first operation.

There is undoubtedly within the limits of the society, hundred of acres—(indeed, there are few farms that have not more or less)—of land that continues to produce light crops of almost worthless hay,—which, simply by draining and turning over, (nearly all of which may be done with a suitable plough,) with a liberal allowance of grass seed, would give large crops of good hay for a series of years, with no other expense than keeping the water courses clear and harvesting. I refer to gently sloping or nearly level wet lands, where there is a good depth of well decomposed vegetable matter sufficiently intermixed with sand to resist excessive moisture or drouth.

The first great requisite in improving wet lands, is undoubtedly draining, as none of our valuable cultivated grasses can exist in ground where water, for a very considerable part of the season, stands on or near the surface. If this fact is lost sight of, ploughing or manuring or any other or all other measures will be of no avail.

Respectfully your ob't servant,

WILLIAM CLARK, Jr.

Northampton, July 29, 1838.

From the New York Observer.

FLAX-SEED MEAL.

Mr. Editor—I observe a communication in your paper of last week, on the subject of feeding cows on on still-house slops. On the immorality of encouraging such a a practice, your readers would probably so generally concur, that I need say nothing on that point; and the unhealthiness of the flesh of cows so fed, as an article of diet, or the inhumanity of condemning an animal to which we are so much indebted to such fare, need not be insisted on. My immediate object is, to direct the attention of your readers to a kind of feed for cows and other cattle, as healthful to them and profitable to the owner, as the slops are pernicious and wasteful. I allude to flax-seed meal, after the oil has been expressed from it; the value of which, as a feed for cattle, appears to be but little known in this part of our country. The superiority of the cattle raised in those parts of the country where flax-seed mills are established, has long been a matter of notoriety; though few, excepting those residing in such localities, are aware that it is chiefly owing to the kind of feed supplied by them. I have been informed by a farmer of Pennsylvania, who has used the flax-seed meal for years, that, mixed with other feed, it is the best thing that can be given to cows for increasing the quantity and enriching the quality of their milk; and at the same time getting them into good condition for the butcher. He says that they will give, on an average, at least one third more milk than if fed on other food; and a little given to horses, also, very much improves their appearance, making their skin sleek and glossy. An experiment I have just made will, I think, justify me in endorsing his opinion. I have a cow which a few weeks since might well have claimed affinity to Pharaoh's lean kine, and she gave so little milk, that I began to consider her a "cumberer of the ground." As no butcher would look at her, it occurred to me that I would try the flax-seed meal which had been so highly commended; and the effect exceeded my most sanguine hopes.—Within the space of a few weeks, her milk has increased to nearly three times the quantity, whilst her flesh has increased so much and her general appearance has so much improved, that her former keeper did not know her when shown to him a few days since. I need only add, that she has been called one of the best looking cows in the neighborhood, and I have been offered a handsome advance upon her cost. Although living at some distance from the city, the meal I used was procured there; and your readers may be informed that there is an establishment there, which grinds as much, perhaps, as would supply all the milkmen of the city. I have been informed that it is so much prized as feed by the agriculturists of Europe, that it is exported from this country; while its value is comparatively unknown here. If so, you will doubtless render a service to the agricultural community by directing their attention to it. Yours, Rusticus.

P. S. The manner of feeding generally practiced is, to give two or three quarts in the morning before the cows are turned out to pasture, and as much in the evening after their return, mixed with other feed. It may be given dry, but it is better for them and more tasteful, if put to soak in water for some hours previous. The common mode, I believe, is, to put that in water in the evening, which is intended for the morning, and then to put to soak that for the evening. Some cattle will at first reject it; but they almost invariably become so fond of it in a few days, that they prefer it almost to any other feed. If given in very large quantity, it is thought by some to impart an unpleasant flavor to the milk. I cannot say whether this is fancy or fact; but can testify that moderately given, it improves it. In large quantities it is said to be decidedly injurious to horses. I have not tried it upon hogs, but propose to do so.

[The bad effects here mentioned, are only such as result from over-feeding with any highly nutritious substance. We understand that the meal may be procured in any quantity along the Great Western Canal, by overbidding the farmers in that region,—which dairymen in this vicinity can well afford to do.—*Ed. Obs.*]

Seedling trees from the Seed of the Morus Multicaulis.

There has been much said in this journal, during the last four years, as to the *kind* of products from the seed of the Chinese mulberry. We were the first in the United States to announce that the seed could not be relied on to produce plants like the parent stock; which being itself an accidental variety, would generally produce other varieties from its seed. This information was totally disregarded by the agricultural public; and one effect of this disregard was the permitting the success of extensive frauds which were perpetrated in sales of what is called Chinese mulberry seed—which seed, was in fact, *not* the product of the *morus multicaulis*, (and was so admitted after the cheat had been discovered,) and which, if it had been, would most probably have been worth no more.

In one of our pieces on this subject, we promised an experimental proof, which will now be furnished. In the editorial remarks on page 711 of vol. iv, it was said that "although believing that the seeds of this plant are not to be relied on for producing their own kind, we are not inclined, in any case, to trust to reported opinions, or authority that is the least doubtful, when the fact can be tested by accurate experiment. We have the means of making such an experiment, in seeds of the *morus multicaulis* taken last summer from trees which grew within the high walls which surround the Penitentiary of Virginia; and near which no other kind of mulberry grew, to affect the seeds by a mixture of the fecundating farina. If *these seeds* will not produce the *morus multicaulis*, it may be thereafter safely pronounced, that seeds are not only not to be relied on to produce this kind, but that the result of reproduction of the like kind rarely, if ever occurs."

The seed were procured, at our request, by Dr. Lewis W. Chamberlayne, of Richmond, who, as attending physician, visits the institution every day, and by whose direction the seed were saved by one of the attendants, and delivered to him as soon as they were gathered and separated from the pulp; and were placed in our hands very soon after. The trees are in the yard, surrounded and overtopped by the very high walls that enclose the buildings, and no other kind of mulberry is near. For these reasons, there was as much security as any situation and circumstances could possibly offer against the access of fecundating farina of other trees to the flowers of these trees; and there was equal security against any change or mixture of the seed, after they were gathered, by mistake, or even by design, if there could be supposed any possible object in the gatherer to produce such deception. We placed the seed in the hands of our friend and near neighbor, S. D. Morton, esq.. whose taste and fondness for the higher departments or horticulture furnished security for his strict attention to so interesting an experiment.—Some of the seeds he planted in the open ground of his garden; and of these very few germinated, and only after a long time. The balance were planted in his hot-bed, sprouted soon, and grew well, and were transplanted afterwards to open ground. Though, to our mind, the result was satisfactory in the first summer's growth, we have waited for the second, and for the larger size and full developement of the leaves, to make report. For this purpose, the plants have been again carefully examined, on the 23d July.

There are now standing twenty-six trees—the largest about five feet high. The few which had been planted in the open ground, and not transplanted, have suffered by their close and shaded positions, and are not more than eighteen inches in height. There is much variety in the appearance of the plants, in the shape and sizes of the leaves, &c. But there is not one which is not entirely and manifestly different from the *morus multicaulis*, of which there is a row parallel to, and within a few feet of the transplanted seedlings. None of the leaves of the latter are so large, nor so smooth, nor have they the convex form which is so marked in the *morus multicaulis*. In general appearance, the young trees are more like the common native mulberry, (*morus rubra*,) than the white—and far more so than the Chinese.

So far as negative proof is to be depended on, this experiment may be considered decisive. But though it is now proved, as we have before maintained, that no reliance should be placed in continuing the kind by seeds, still we would not deny (even in the absence of facts,) that the seed of the variety may *sometimes* produce its like kind.—Gideon B. Smith, esq., of Baltimore, has raised the true multicaulis from seeds; and therefore there is no doubt of the fact, as it could not rest on better authority. But such results are so rare, and the failures would be so many, that the fact, however curious and interesting, is of no value for practical example, even if the seed could be obtained in quantity, and at a cheap rate.—*Ed. Far. Reg.*

Manufactory of Silk.

Northampton, July 27, 1838.

Yesterday I visited Mr. Whitmarsh's establishment and, although I had heard much of his factory, I was most agreeably disappointed. Few men in this country deserve more credit for their enterprise and industry. But a few years since he was a successful merchant in Broadway. He retired to this place, since which he has visited various parts of Europe, to obtain information relating to the mulberry, the worm, and the manufacture of Silk; and, *un*-like nearly all his traveling countrymen, he has brought his knowledge into practical usefulness. He purchased a neglected spot, which he has improved to such a degree, that it now presents one of the most tasteful country seats that adorns our country, and has erected a fine cottage, after the Corinthian order, not unlike in appearance the Hall of Record, in the Park. The grounds are laid out with a taste that would do credit to an English nobleman.

The great objects of attraction, however, are his mulberry grounds, his cocoonery, and his factory. In the first are fields of the plant; they are placed in hedges, about four feet high and about eight feet part, and men are constantly employed in hoeing them and keeping the ground perfectly clear of weeds and grass. He has every variety of plant, and is making valuable experiments as to which species will best suit the climate, and yield the finest and best silk. Many of these plants he brought from the villas of Italy. His cocoonery is a building of two stories, about thirty feet wide and a hundred and fifty feet long; here are different shelves or tables, on which are myriads of worms in all their different stages, from that of hatching from the egg, to that of winding up their balls. The whole labor of feeding and attending to these myriads of "*manufacturers*," is done by a few females, and is neither arduous nor unpleasant. There are two manufactories, and a third now building. The smallest is the one I examined. It is beyond my power to detail the progress of the manufacture. Every thing appeared neat, and the girls cheerful and happy. The silk, from the raw to manufactured state, is here perfected, and sells much higher than the imported..—*Correspondence of the N. Y. Express.*

Eleventh Annual Fair of the American Institute,

OF THE CITY OF NEW-YORK, AT NIBLO'S GARDEN, NO. 576 BROADWAY.

This celebration of American Industry and the Arts will be opened to visitors on Monday, the 15th day of October next, at 10 o'clock A. M. Articles intended for competition for Premium must be delivered on Friday or Saturday previous, viz., the 12th or 13th October. Choice productions from every department of Industry, whether of Agriculture, Manufactures, or the Arts, as well as al. kinds of Machines, Models, &c., will be appropriate for exhibition and competition for Premium.

To provide the requisite accommodations for the grand display which the notices already received decidedly indicate, Niblo's entire Garden has been engaged, embracing a part of the prominade, never before occupied by the Institute, with extra room one hundred feet in length and twenty-five feet in width. A powerful steam engine will be provided, which will afford a continued moving exhibition of machinery. The liberality of the public enabled the managers of the last two fairs to bestow in Premiums, exclusive of Diplomas, *sixty Gold Medals*, and *two hundred and sixty Silver Medals*, in addition to other not inconsiderable rewards in money.

Prompted by a desire to increase the interest awakened in agriculture, particularly in the culture of silk, a number of patriotic individuals have volunteered to add to the means of the present managers, in order to enable

them to extend more liberal bounties, and promote among the Silk Culturists of our country a fresh spirit of emulation. The laudable example we hope the opulent and public spirited, who take an interest in other departments of productive industry will follow by associating and contributing with similar high-minded motives.

The enthusiasim with which form r celebrations have been hailed, and the cheering influences already inspired by the approaching one—notwithstanding all our severe businesss calamities—confer on them a character and value never before adequately appreciated. By means of these Fairs, necessity, instead of depressing invention, has brought forth its mighty powers, and is developing its unbounded resources.

Articles sold during the fair cannot be delivered until the close; and in order to enlarge the amount of sales and bring to fabricators and producers, immediate benefits, it is particularly desired that a description should accompany each article, stating the price, by whom manufactured, designating particularly the place where they may be obtained. The uses and objects of each article, if not apparent, should also be stated; such a description will facilitate the distribution of printed catalogues early in the first week of the fair, and will no doubt swell the amount of sales.

The public are invited to attend this Anniversary Celebration. Distinguished individuals, it is hoped, will be present, countenancing and inspiring as usual. Female delicacy, taste, and ingenuity, have never failed to impart a crowning effect; and we trust they will, on the coming occasion, more than ever command admiration.

☞ For further particulars address T. B. Wakeman, Cor. Sec'y, at the Repository of the American Institute, 187 Broadway. where specimens of manufactures, models, machines, &c. are received free of expense, and exhibited daily.

Remarks on Purchasing a Horse.

My neighbor Tyson, having occasion to purchase a horse for hard and immediate work, I advised him not to buy under five years of age. He yesterday took me to see a horse, for which he had partly agreed, warranted sound, and five years old. On examining the mouth, I inquired of the onwer if he could warrant him five years old. He answered, "he is *coming* five." "Yes," I replied, "and will be so, for nearly two years to come; the fact is, he is a three year old colt." This common trick reminds me of a butcher I once knew, who, when he had old beef for sale, would spread his hand upon it, and declare it was under five, meaning it was under *four fingers and a thumb.*

Few persons, even amongst those to whom the knowledge ought to be indispensible, are acquainted with the mode of judging of the age of a horse by the teeth: as the lesson can be committed to memory in five minutes, I copy it from my memorandum book, asking for it an insertion in your valuable Cabinet.

How to form a judgment of the age of a horse by his teeth.

At two years old, the horse sheds the two middle teeth of the under jaw. At three years old, he sheds the two remaining, or corner teeth. At five years old, the two middle teeth are full, no longer hollow, as all the others are; and the teeth have penetrated the gums. At six years old, the four middle teeth are full, the corner teeth only remaining hollow: the tusks are sharp, with the sides fluted. At seven years old, the corner teeth are full, the tusks longer and thicker, and the horse is said to be *aged.*

Note. It is not meant that exactly at the periods above mentioned these changes take place in the horse; much depends upon his constitution; whether he be a late or early foal; also upon the manner in which he has been reared, as to food and shelter, &c. The corner teeth too, might remain a little hollow after the age of seven, but the appearance is still very unlike the mere shells, which they are, at the age of six. An Old Farmer.

Farmers' Cabinet.

PEACH PROSPECT.

We are happy to learn from Delaware, now becoming celebrated for its *fine peaches*, that although the cold weather and frosts have been most trying on the young fruit, and much of it injured, that there is *enough spared* to promise a fine crop—if no future frosts should occur to nip the tender blossoms just bursting from the bud. The great success of Messrs. Ridgeway and Reeves, near Delaware City, (and who does not remember their fine luscious peaches of last summer?) will soon be followed by other equally enterprising gentlemen of Delaware and this city who have gone largely into the business.

On the Union Farms, near Wilmington, owned, we understand, by Dr. Thomson of that place, and Mr. M. Eayre of this city, we learn that about 100 acres immediately on the river Delaware, are now flourishing in peach trees, and that about one half will bear this year, and that by a late arrangement our esteemed fellow-citizen, I. Reeves, for whom peaches will always grow, has become a partner with these gentlemen in their large concern. Philip Reybold, Esq., the efficient President of the Delaware Agricultural Society, has also, we understand, set out this spring a large orchard. We sincerely wish all these gentlemen the success they merit. Some of the fine peach districts of Jersey, seem of late years to have lost their power of producing, and continuing long-lived, the tree that produces this best, in its season, of all fruits. We should like to hear from some of our Jersey subscribers, if they can give us the reason, why it is so—and if any clue has yet been found into that most insidious and fatal disease to the peach tree, *the yellows*? We hope this hint will be kindly taken, and that all the information that can be imparted to us may be given for the benefit of the readers of the Cabinet, on the interesting subject of rearing and of prolonging the existence of the peach tree. A full and generous supply of this luscious and wholesome fruit, is a matter of great interest and luxury to every one, and our populous districts and cities should not hesitate to hold out the highest premiums and inducements to those who propagate fruit and and supply our markets with the finest varieties.—*Farmer's Cabinet.*

White Weed, or Oxeye Daisy.

We are pleased to see that some farmers in this vicinity, whose farms are not already much infected with this troublesome weed, are taking every measure to prevent its spread upon their farms.—On some farms it has become so common that it is almost if not quite impossible to eradicate it; but on those places where it is just beginning to show itself, it can be easily kept down by a little care in preventing its spread. It is a weed which injures more by its negative than by its positive qualities;—that is, it requires much room, and yields but little in return for it. The hay it makes is very well liked by cattle, but it yields a small amount to the acre, even when it grows the most luxuriously. It will grow on almost any soil, but it seems to like stiff clays as well as any. Its seeds being furnished with a down, are easily wafted to a distance by the winds, and thus become spread over great extent of country, and frequently spring up on farms to the surprise of the owner, who is confident that he had none of it about him the year before. Prevention is the best system to follow in such places in regard to them. Pull them up and destroy them while there are but few of them. Would it not be well for our Agricultural Societis to offer premiums for the best mode of destroying them? Something of the kind to turn attention to this particular object, and to induce a trial of experiments upon the subject, would probably lead to valuable results.—*Ma ne Farmer.*

Silk Business.

PERSONS who intend doing an extensive business next year with the Mulberries, can be supplied with the *true genuine Morus multicaulis* trees and cuttings, by sending in their orders early. Companies that wish to contract for large quantities, can be supplied on reasonable terms. The trees are to be well packed, so as to be sent to any part of the United States, and delivered this fall. The subscriber has been extensively engaged in the culture of silk for some years, particularly to the production of the Morus multicaulis; and will be happy to give any information respecting the tree or feeding the worm that may be required—silk, worm eggs, &c.

All letters will meet with immediate attention if assigned to EDWARD H. ARNOLD.

Burlington, New Jersey.

N. B. As orders are coming in now, it would be well for those in want to apply early. Aug. 1838.–3m*

Imported Sheep for Sale.

TO be sold, ten Leicester Bucks. These animals were selected from some of the best flocks in England, and imported last year by their present owner. Also, an imported Devon Bull. Apply to

JOHN COWLEN,

Aug. 4, 1838.–3t *Truxton, Cortland Co., N. Y.*

Morus Multicaulis.

THE subscribers are prepared to furnish Chinese Mulberry, or Morus multicaulis trees, in large or small quantities, delivered any time this fall after the first of October, or they will contract them delivered in the spring.

The trees were raised in this climate from layers, are from two to three feet high, of thrifty growth and matured wood, and will be sold at the lowest prices, in proportion to their size.

October and November are the most favorable months to transport them to the Western states or into Canada, or in any direction where they must be sent a distance by water communication.

Applications for Trees may be made at the Green House on Sophia-street, where they will be kept, or at the Seed Store in the Arcade; and orders from a distance, by mail, should be sent early, addressed to

REYNOLDS & BATEHAM.

July 28, 1838. *Rochester, N. Y.*

New Arrival of Turnep Seeds.

WE have just received from England a large additional supply of Turnep Seeds, among which are the following kinds:

Ruta Baga, or Yellow Sweedish,
Dale's Yellow Hybrid,
Yellow Bullock, Yellow Scotch,
Yellow Aberdeen, Red Round,
White Globe or Flat,
White Norfolk, Long Tankard,
Early White Flat Dutch,
White Stone, Yellow Stone,
Yellow Malta, Yellow Dutch.

☞ See descriptive list on page 198, current vol. Genesee Farmer. REYNOLDS & BATEHAM.

Rochester Seed Store, June 23, 1838.

Drill-Barrows or Planting Machines.

A NEW supply of Robbins' Patent Planting Machines, just received at the Rochester Seed Store.

Also, a number of Merchants' Patent Drill Barrows. [See No. 18, current vol. of the Genesee Farmer.]

May 5. REYNOLDS & BATEHAM.

Farmers' Books.

NOTICES on the Sugar Beet, containing a description of the culture and preservation of the plant; also explanations of the process of extracting its Sugar. Price 25 cts.

A Manual of the art of making and refining sugar from Beets. Price 75 cents.

Cobb's Manual on the Culture of Silk.
Chaptal's Agricultural Chemistry.
The Complete Farmer, by Fessenden.
Fessenden's American Gardener.
A Guide to Orchardists.
Smith's Treatise on the Honey Bee.
A Treatise on Cattle.
Mason's Farriery.
Barnum's American Farriery.
Vols. 1st and 4th, Genesee Farmer, bound.

For sale by D. HOYT,

Rochester, May 26 1838. Bookseller, 6 State st.

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public, that he has for sale at his Nursery in Rochester, Monroe county, state of New-York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms. SAMUEL MOULSON.

April 15, 1838.

N. B. Cash will be paid for a few thousand two years old Apple Trees.

Monroe Horticultural Garden & Nurseries, Greece, Monroe County, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with Trees and Plants in the different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer.

April 1, 1838. ASA ROWE.

ELECTION NOTICE.—*Sheriff's Office, Monroe County, Rochester, July 19th,* 1838.—A general election is to be held in the county of Monroe, on the 5th, 6th and 7th days of November next, at which will be chosen the officers mentioned in the notice from the Secretary of State, of which a copy is annexed.

DARIUS PERRIN, *Sheriff.*

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State of New-York, Secretary's Office, Albany, July 16th, 1838.—Sir: I hereby give you notice, that at the next General Election in this State, to be held on the 5th, 6th and 7th days of November next, a Governor and Lieutenant Governor are to be elected.

I also give you notice, that a Senator is to be chosen in the Eighth Senate District, in the place of Isaac Lacy, whose term of office will expire on the last day of December. JOHN A DIX, *Secretary of State.*

To the Sheriff of Monroe county.

N. B. The Inspectors of Election in the several towns in your county, will give notice of the Election of a Representative to Congress from the 28th Congressional District. They will also give notice of the Election of Members of Assembly, and for filling any vacancies in county officers which may exist. July 28, 1838.